Chetverikov, P. F.

Effect of the mash temperature on steam requirement in distillation. P. F. Chetverikov. *Trudy Leningrad. Tekhnol. Inst. Pishchevoi Prom.* 3, 119-21(1953); *Referat. Zhur., Khim.* 1955, No. 3002.—A graph was calcd. relating the concn. of alc. on the feeding plate to the temp. of the mash. This gave the total requirement of steam needed in the production of crude alc., 90% by wt., from mashes contg. 0.5-8.0% by wt. alc. It is concluded that preheating of the mash is advisable only if there is a source of waste heat, and the heating should be below the boiling temp. of the mash. The preheating of concd. mash is more effective than the preheating of weak mash. —M. Hosch

1

Chem

CHETVERIKOV, Ye.F.; SMIRNOV, V.A.

Swelling of grain during steaming in the manufacture of alcohol. Izv.vys.ucheb.zav.; pishch.tekh. no.2:68-72 '59. (MIRA 12:8)

1. Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti.
(Grain) (Distilling industries)

BABKIN, A.S.; CHETVERIKOV, Ye.N.

Present-day requirements for an evaluation of tantalum, beryllium, and niobium deposits. Razved. i okh. nedr 31 no 1:10-14 Ja '65. (MIRA 18:3)

RODIONOVA, K.F.; CHETVERIKOVA, A.P.

Studying the composition of residual organic matter in Paleozoic sedimentary rocks in the middle Volga Valle. Geokhimiia no.10:899-903 '62. (MIRA 16:4)

1. All-Union Scientific Research Institute of Geological Oil-Prospecting.
(Volga Valley--Rocks, Sedimentary)
(Volga Valley--Organic matter)

GASTEVA, S.V.; MALINOVSKIY, O.V.; POMAZANSKAYA, L.F.; ULYBINA, I.N.; CHETVERIKOVA, D.A.

Effect of ionizing radiation on certain aspects of the phosphorus metabolism of the brain. Trudy Inst.fiziol. 8:533-542 '59. (MIRA 13:5)

1. Laboratoriya radiobiologii (zaveduyushchiy - D.A. Chetverikov) Instituta fiziologii im. I.P. Pavlova AN SSSR.

(PHOSPHORUS METABOLISM) (BRAIN)
(X RAYS--PHYSIOLOGICAL EFFECT)

CHETVERIKOVA, G.A.

Modification of cohesive and elastic properties of muscle in immobilized contractures. Biul. eksp. biol. i med. 46 no.11:38-42 N '58. (MIRA 12:1).

1. Iz kafedry normal'noy fiziologii (zav. - prof. N.V. Semenov, nauchnye rukovoditeli - prof. Ye.K. Zhukov i prof. N.V. Semenov) Kalininskogo gosudarstvennogo meditsinskogo instituta (dir. - prof. R.I. Gavrilov). Predstavlena deystvitel'nym chlenom AMN SSSR D.N. Nasonovym [deceased].

(CONTRACTURE, exper.
eff. of immobilization on cohesive & elastic musc. properties (Rus))

(MUSCLES, physiol.
eff. of immobilization on cohesive & elastic properties in contractures (Rus))

SEMENOV, N.V.; CHETVERIKOVA, G.A.; KONSTANTINOVA, T.I.

Certain reactions in the organism in isolated hypothermia of the brain. Biul. eksp. biol. i med. 49 no.1:35-38 Ja '60. (MIRA 13:7)

1. Iz kafedry normal'noy fiziologii (zav. - prof. N.V.Semenov) Kalininskogo meditsinskogo instituta (dir. - dotsent A.N. Kushnev) Predstavlena deystv. chlenom AMN SSSR V.N. Chernigovskim).
(BRAIN) (HYPOTHERMIA)

40313

S/194/62/000/006/075/232
D413/D308

26.1640

AUTHORS: Damaskina, I.I., and Chetverikova, G.A.

TITLE: Thermionic energy converters

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-3-8 r (V Sb. "Teploenergetika" no. 3, M. AN SSSR, 1961, 82-86)

TEXT: A review of experimental investigations into thermionic converters is given. The first test was made by the Soviet scientists M.Ye. Gurtov and G.I. Kovalenko in 1941. The authors give preliminary results of the investigation of a thermionic converter consisting of a glass tube containing a tungsten ribbon cathode and a nickel anode (internal diameter 2.5 mm, length 6 mm), coaxially mounted at a distance of about from one another. The cathode is supplied with alternating current at the industrial supply frequency. The vapor pressure of caesium was determined by the temperature of the glass envelope. The caesium acts as the source of ions; besides, it considerably reduces the anode work function. Voltage-current characteristics are given for the converter at a caesium va-

Card 1/2

Thermionic energy converters

S/194/62/000/006/075/232
D413/D308

por pressure of 3×10^{-2} mm Hg. The maximum power was 3.27 W at a current of 1 A. Under these conditions the cathode temperature was about 2900°K and the efficiency was 4 %. At a pressure of 0.6 mm Hg the maximum power corresponded to a load resistance of 0.4 Ω, and the efficiency was 3 %. [Abstracter's note: Complete translation.]

Card 2/2

26.2531
26.1640

33945
S/665/61/000/003/009/018
E039/E420

AUTHORS: Damaskina, I.I., Chetverikova, G.A.

TITLE: Thermionic power converters

SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Teploenergetika. no.3, 1961. Poluprovodnikovyye preobrazovateli solnechnoy energii. 82-86

TEXT: The basic processes occurring in a thermionic converter are described. It is suggested that the work function of the cathode should be larger than that of the anode bearing in mind that the anode emission must only be a small fraction of the cathode emission. In order to reach the anode, electrons from the cathode must overcome the potential barrier of the space charge. There are four possible ways of overcoming this barrier:
1) the reduction of the interelectrode distance down to a few microns;
2) space charge neutralization by the introduction of positive ions;
3) the use of electric and magnetic fields ensuring the free passage of electrons from cathode to anode;
4) the introduction of a third electrode, a grid for accelerating electrons.

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33945
S/665/61/000/003/009/018
E039/E420

Thermionic power converters

Only methods (1) and (2) have been used in practice. It has been shown that powers of up to 0.8 W/cm^2 can be obtained by method (1) with an efficiency of about 13%. Using method (2) space charge neutralization is effected by the introduction of positive cesium ions. One converter operating with a cesium vapour pressure of about 10^{-3} to 10^{-2} mm Hg yielded an efficiency of 10.4% while in another working at a cesium vapour pressure of several mm Hg the efficiency was 9.2%. G.M.Grover (Ref.13: Nucleonics, v.17, no.7, 1959, 54) was the first to utilize nuclear power to heat the cathode of a thermionic converter. He used a cathode consisting of a solid solution of ZrC in uranium carbide enriched with U^{235} and a cylinder of stainless steel as a collector. The converter was placed in the core of a reactor and a cathode temperature of 2700°K was obtained, yielding short circuit currents of 30 A and an emf of 3.8 V. The authors present the preliminary results obtained with a converter consisting of a glass tube with a tungsten strip cathode (10 x 1 x 0.05 mm), a nickel anode (internal diameter 2.5 mm and length 6 mm) with interelectrode spacing of about 1.3 mm.

Card 2/5

Thermionic power converters

Cesium vapour was introduced which acted as a source of positive ions and also reduced the anode work function by forming a film of cesium on the anode. The preliminary results are shown in Fig.2. In Fig.2a, the volt-ampere characteristics and the power curve for the converter operating at a cesium vapour pressure of 0.6 mm are given. The maximum power under these conditions was about 1.2 W. Similar curves for the converter working at a cesium vapour pressure of 3×10^{-2} mm Hg are shown in Fig.2b. [Abstractor's note: The data on the figure does not agree with that given in the Russian text. However, the information on the figure appears to be more self consistent.] As the cesium vapour pressure is increased from about 10^{-2} to 0.6 mm Hg, the slope of the volt-ampere characteristics was increased. At a cesium vapour pressure of about 10^{-2} mm the efficiency was about 4% and at 0.6 mm about 3%. M.Ye.Gurtovoy, G.I.Kovalenko, P.M.Marchuk, B.Ya.Moyzhes and G.Ye.Pikus are mentioned in the article. There are 2 figures, 1 table and 15 references: 5 Soviet-bloc and 10 non-Soviet-bloc. The four most recent references to English language publications read as follows:

33945
S/665/61/000/003/009/018
E039/E420

Thermionic power converters

Ref.11: Wilson V., J. Appl. Phys., v.30, no.4, 1959, 475;
Ref.12: Houston J.M., J. Appl. Phys., v.30, no.4, 1959, 481;
Ref.13: as quoted in text;
Ref.14: Lewis H.W. and Reitz J.R. J. Appl. Phys. v.30, no.9, 1959, 1439.

Card 4/5

ACC NR: AP6035251 (A) SOURCE CODE: UR/0377/66/000/004/0003/0007

AUTHOR: Yegorova, I. V.; Tykvenko, R. N.; Chetverikova, G. A.

ORG: All-Union Scientific Research Institute of Current Sources (Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka)

TITLE: Photoelectrical film converters

SOURCE: Geliotekhnika, no. 4, 1966, 3-7

TOPIC TAGS: photoelectric property, silicon film, cadmium , telluride film, cadmium sulfide film, photoconverter, film converter, film photoconverter, thin film element, film technology

ABSTRACT: The results of an investigation of the electrical and photoelectric properties of photoelectrical film converters on a silicon, cadmium telluride or cadmium sulfide base are given. The volt-ampere characteristics of light and darkness are analyzed for film photoconverters, the spectral distribution of short circuit photoelectric current, the temperature dependence of electromotive force of blank motion, the short circuit current and efficiency, and the dependence of electromotive force of blank motion and short circuit current on the strength of falling radiation. Orig. art. has: 4 figures. [Based on authors' abstract] [NT]

Card 1/1 SUB CODE: 10, 20/SUBM DATE: none/OTH REF: 003/

CHETVERIKOVA I. Mar/Apr. 49

USSR/ Medicine - Microbiology
Medicine - Bacteria, Culture

"Interrelationship of the Processes of Constructive and Energetic Exchange of Matter in Heterotrophic Bacteria," A. Ya. Manteyfel', V. Pozdanova, I. Chetverikova, Chair of Microbiol, Moscow State U, 10 p

"Mikrobiologiya" Vol XVIII, No 2

Conducted studies to determine exchange of matter by P. formicum in media containing formic acid salts under anaerobic conditions. Possible to grow these bacteria on a nthetic media composed of calcium formate, ammonium sulfate, phosphate, biotine and thiamine (in tap water). Autoregulation of the pH of the media is possible due to presence of some acetic acid. Submitted 30 Oct. 48.

PA 44/49T64

AUTHORS: Kitaygorodskiy, I. I., SOV/72-58-11-6/15
Sil'vestrovich, S. I., Chetverikova, L. N.

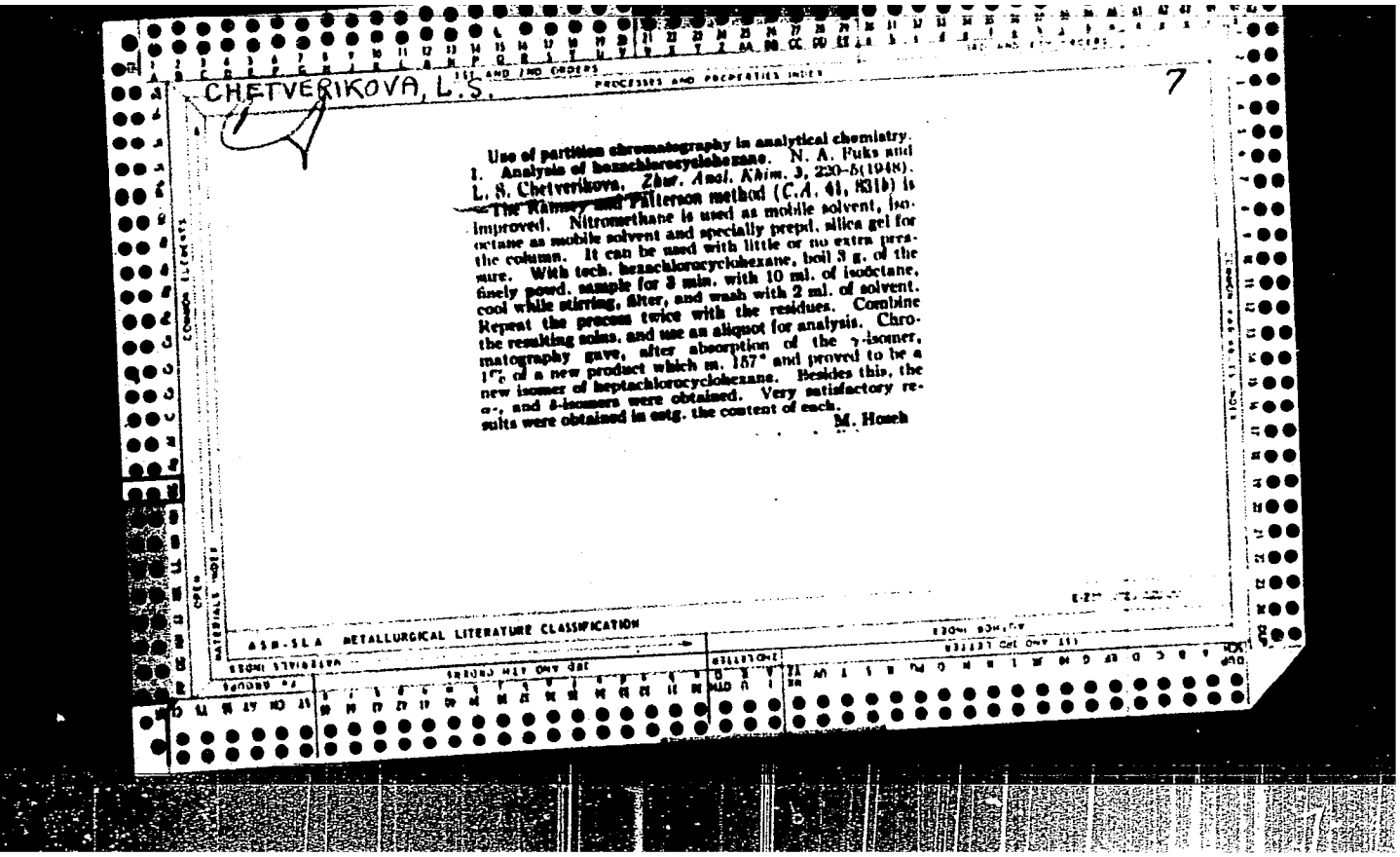
TITLE: Technical Stone From Glass Corundum (Tekhnicheskiy kamen' iz steklokorunda)

PERIODICAL: Steklo i keramika, 1958, Nr 11, pp 17 - 21 (USSR)

ABSTRACT: The synthesis of thick, sintered glass corundum was previously only carried out for the process of producing fire-resistant materials, as can be seen from the papers of I. I. Kitaygorodskiy, N. V. Solomin, A. I. Polinkovskaya, and S. F. Volchanov (Ref 1). In the work reported in this paper the authors used alkali-low and alkali-free aluminum-silicate glasses with high Al_2O_3 and MgO contents, whose positive influence upon the sintering and strengthening processes for ceramic materials was demonstrated in the paper by S. I. Sil'vestrovich (Ref 2). The chemical composition of the glasses and their characteristic properties are given in table 1. The gradation of grain sizes and the specific surface of the fine dispersion powder of the glass and the electrocorundum are given in table 2. The influence of the kind and amount of the glassy phase upon the degree

Card 1/2

of sintering and strengthening of the glass corundum is indicated in figure 1, while the influence of the burning temperature is shown in figure 2. Table 3 shows the values for the characteristic physical and technical properties of the synthetic glass corundum. Experiments showed that the greatest strength of the glass corundum is related to an optimal content of the glassy phase. Table 4 compares the physical and technical properties of the natural stones agate, jasper and quartzite. The glass corundum is not inferior in its heat mechanical properties to the naturally-occurring stones. There are 2 figures, 4 tables, and 4 references, which are Soviet.



CHETVERIKOVA, L.S.

7

Use of partition chromatography in analytical chemistry. I. Analysis of benzchlorocyclohexane. N. A. Puks and L. S. Chetverikova. *Zhur. Anal. Khim.* 3, 220–5(1948). The Kaiser and Patterson method (*C.A.* 41, 831b) is improved. Nitromethane is used as mobile solvent, isooctane as mobile solvent and specially prepd. silica gel for the column. It can be used with little or no extra pressure. With tech. benzchlorocyclohexane, boil 5 g. of the finely powd. sample for 3 min. with 10 ml. of isooctane, cool while stirring, filter, and wash with 2 ml. of solvent. Repeat the process twice with the residues. Combine the resulting solns. and use an aliquot for analysis. Chromatography gave, after absorption of the γ-isomer, 17% of a new product which m. 157° and proved to be a new isomer of heptachlorocyclohexane. Besides this, the α-, and δ-isomers were obtained. Very satisfactory results were obtained in estg. the content of each.

M. Hosch

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

CHETVERIKOVA, L.S., MADAYEVA, O.S.

Quantitative extraction of diosgenin from the yam root.
Med.prom 12 no.8:28-30 Ag '58 (MIRA 11:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(DIOSGENIN)
(YAMS)

CHETVERIKOVA, L.S.; KICHENKO, V.I.; UTKIN, L.M.

Investigation of plants native to the U.S.S.R. for their saponin content. Trudy VILAR no. 11:202-228 '59. (MIRA 14:2)
(SAPONINS) (BOTANY, MEDICAL)

MADAYEVA, O.S.; SEROVA, N.A.; CHETVERIKOVA, L.S.; SHEYNKER, Yu.N.; KICHENKO, V.I.

Investigation of some saponin-bearing plants for their content steroid saponin. Trudy VILAR no. 11:229-236 '59. (MIRA 14:2)
(SAPONINS) (BOTANY, MEDICAL)

VUL'FSON, N.S.; ZARETSKIY, V.I.; CHETVERIKOVA, L.S.

Thin layer chromatography of natural coumarins and furanocoumarins.
Izv.AN SSSR.Ser.khim. no.8:1503-1505 Ag '63. (MIRA 16:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
(Coumarin) (Chromatographic analysis)

ACCESSION NR: AP5011025 UR/0079/64/034/011/3655/3659

AUTHOR: Zaretskiy, V. I.; Vul'fson, N. S.; Chetverikova, L. S.; Zaikin, V. G.

TITLE: Mass spectroscopic investigation of heterocylic compounds. Structure of peumorisin--a new natural hydroxycoumarin, isolated from [illegible]

SOURCE: Zhurnal obshchey khimii, v. 34, no. 11, 1964, 3655-3659

TOPIC TAGS: heterocyclic base compound, mass spectroscopy, botany, pharmacognosy, pharmacology

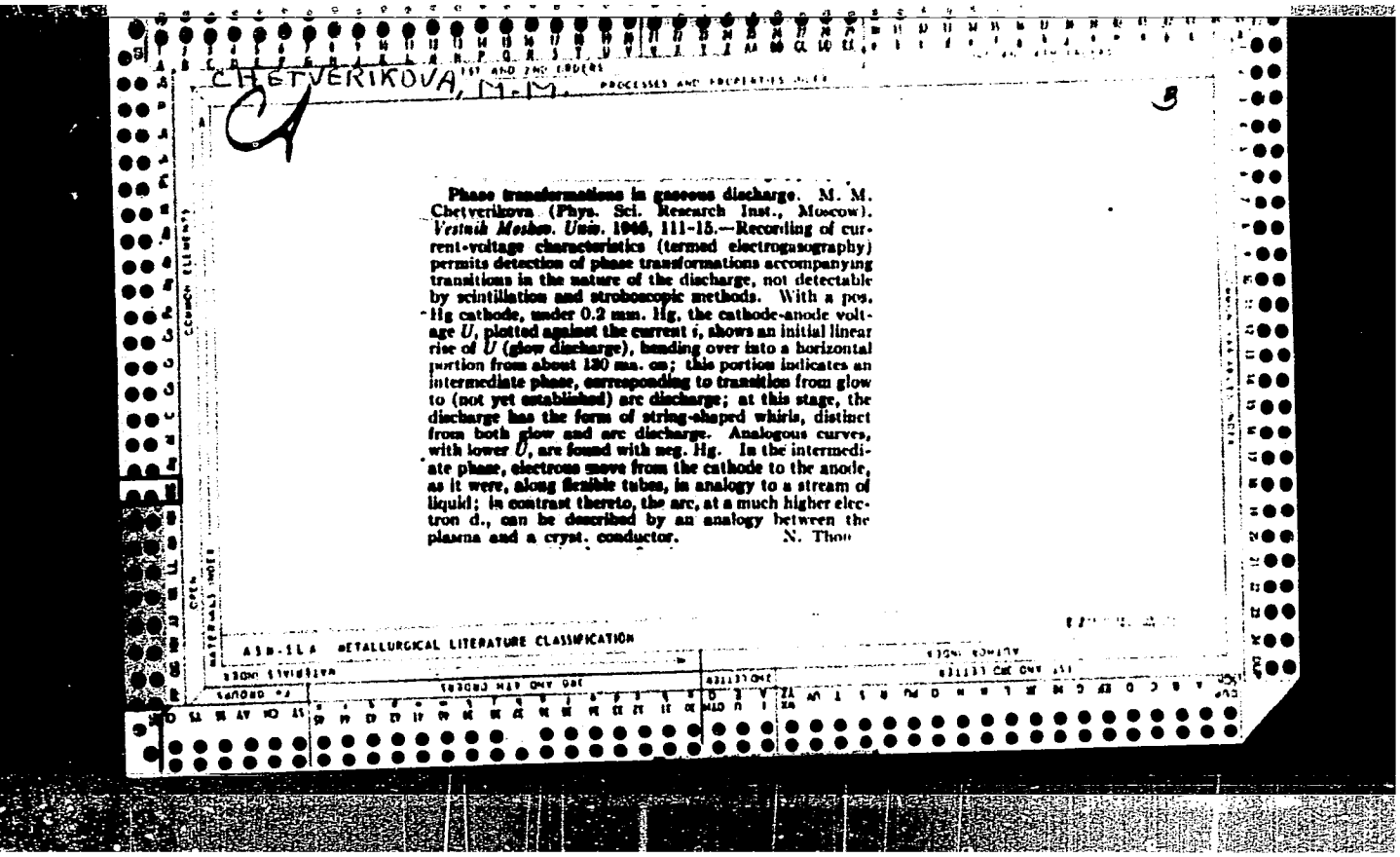
Abstract: A new hydroxycoumarin -- peumorisin -- has been isolated from the roots of Morison's brimstone-wort (Peucadanum Morisonii Bess., family Umbelliferae). A mass spectrometric fragment analysis established that peumorisin is 7-hydroxy-8-(3'-methylbutene-2'yl-1')-coumarin. The [illegible] spectra of the compounds are also cited and compared with those of [illegible] and umbelliferone. Orig. art. has 7 formulas and 4 graphs.

ASSOCIATION: none

SUBMITTED: 29Jul63 ENCL: 00 SUB CODE: LS, OP

NO REF SOV: 002 OTHER: 001 JPRS

Card 1/1



CHETVERIKOVA, M.M.

Phase transformations in gaseous discharge. M. M. Chetverikova (Phys. Sci. Research Inst., Moscow). *Vestnik Moskov. Univ.* 1946, 111–15.—Recording of current-voltage characteristics (termed electrogasography) permits detection of phase transformations accompanying transitions in the nature of the discharge, not detectable by scintillation and stroboscopic methods. With a pos. Hg cathode, under 0.2 mm. Hg, the cathode-anode voltage U, plotted against the current i, shows an initial linear rise of U (glow discharge), bending over into a horizontal portion from about 130 ma. on; this portion indicates an intermediate phase, corresponding to transition from glow to (not yet established) arc discharge; at this stage, the discharge has the form of string-shaped whirls, distinct from both glow and arc discharge. Analogous curves, with lower U, are found with neg. Hg. In the intermediate phase, electrons move from the cathode to the anode, as it were, along flexible tubes, in analogy to a stream of liquid; in contrast thereto, the arc, at a much higher electron d., can be described by an analogy between the plasma and a cryst. conductor. N. Thon

A58-11A METALLURGICAL LITERATURE CLASSIFICATION

CHETVERIKOVA, M. M.

178T109

USSR/Physics - Gas-Discharge Tubes Feb 51
Oscillations

"Oscillations in Gas-Discharge Tubes," M. M. Chetverikova, Cand Tech Sci, Sci Res Inst Phys, Moscow State U

"Elektrichestvo" No 2, pp 16-21

Cites basic results on generation of hf oscillations by both industrial thyratrons and gas-filled rectifiers and tubes specially designed for this purpose. Concludes possibility of increasing frequency and power of oscillations generated in gas-discharge devices should be studies further. These oscillations should also be studies as cause of breakdowns and as noise source. Submitted 9 Sep 50.

178T109

[redacted]RIKOVA, M.M.

Self-oscillations in a.h.v. rectifier unit. Elektrichestvo '53, No.4, 35-8. (MLRA 6:4)
(KEA 56 no.672:4759 '53)

28(3) SOV/47-59-2-5/31

AUTHOR: Chetverikova, M.M.

TITLE: Native Physicist-Pedagogues: Aleksandr Aleksandrovich Eykhenval'd (Otechestvennyye fiziki-pedagogi: Aleksandr Aleksandrovich Eykhenval'd)

PERIODICAL: Fizika v shkole, 1959, Nr 2, pp 18-19 (USSR)

ABSTRACT: The article contains a biography of A.A. Eykhenval'd, who was born in St. Petersburg in 1863 and died in Italy in 1944, having left Russia in 1920. He acted as an instructor at several higher educational institutions, and in 1897 and 1904 the degrees of Doctor of Philosophy and Doctor of Physics, respectively, were conferred on him. The author lists a number of Eykhenval'd's scientific works and textbooks for the higher school. It is stated that the present Institut tonkoy khimicheskoy tekhnologii (Institute of Fine Chemical Technology) has been erected according to his design. There is 1 photograph.

Card 1/1

BELIKOV, I.F.; CHETVERIKOVA, N.I.

Assimilation of radioactive carbon (C^{14}) by various groups of substances in leaves of different position in the ontogeny of soybean. Izv. SO AN SSSR no.4 Ser. biol.-med. nauk no.1:33-40 '64. (MIRA 17:11)

1. Dal'nevostochnyy filial Sibirskogo otdeleniya AN SSSR, Vladivostok.

CHETVERIKOVA, N.I.

Controlled translocation of assimilates from leaves of various levels in the ontogenesis of the sunflower. Izv. SO AN SSSR no.4. Ser. biol.-med.nauk no.1:68-74 '65.

(MIRA 18:8)

1. Biologo-pochvennyy institut Dal'nevostochnogo filiala Sibirskogo otdeleniya AN SSSR, Vladivostok.

CHETVERIKOVA, N.P.

BOGDANOV, A.A.; ZARAVNYAYEVA, V.K.; CHETVERIKOVA, N.P.

New data on the structure of the lower Paleozoic of the Sary-Su-Tengiz uplift in central Kazakhstan. Sov. geol. no.52:27-33 '56.
(Kazakhstan--Geology, Stratigraphic) (MLRA 10:4)

CHETVERIKOVA, N. P.

KELLER, B.M.; KOROLEVA, M.N.; RUKAVISHNIKOVA, T.B.; CHETVERIKOVA, N.P.; CHUGAYEVA, M.N.

Data for establishing a single stratigraphic scale for the Ordovician of Kazakhstan. Sov. geol. no.52:34-46 '56. (MLRA 10:4)
(Kazakhstan--Geology, Stratigraphic)

CHETVERIKOVA, N.P., Cand Geol-Min Sci--(diss) "Ordovician and Silurian deposits of the western part of Central Kazakhstan." Mos, 1958. 22 pp (Mos Order of Lenin and Order of Labor Red Banner State U im M.V.Lomonosov. Geol Faculty), 110 copies (KL,45-58, 144)

Chetverikova, N.P.

ZARAVNYAYEVA, V.K.; CHETVERIKOVA, N.P.

Paleontological upper Cambrian deposits in the western part of Central Kazakhstan. Sov. geol. 1 no.2:134-136 '58. (MIRA 11:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Kazakhstan--Petrology)

CHETVERIKOVA, N.P.

Stratigraphy of the lower Paleozoic sedimentation in the western part of central Kazakhstan. Nauch.dokl.vys.shkoly; geol.-geog. nauki no.2:99-104 '58. (MIRA 12:2)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra istoricheskoy geologii.
(Kazakhstan—Geology, Stratigraphic)

CHETVERIKOVA, Nataliya Petrovna; BOGDANOV, A.A., red.; LYUBIMOV, I.M., red.; YERMAKOV, M.S., tekhn.red.

[Ordovician and Silurian sediments in the western part of central Kazakhstan] Ordovikskie i siluriiskie otlozheniia zapadnoi chasti TSentral'nogo Kazakhstana. Izd-vo Moskovskogo universiteta, 1960, 97 p. (Materialy po geologii TSentral'nogo Kazakhstana, vol.1). (MIRA 15:3)

(Kazakhstan--Geology)

BOGDANOV, A.A.; CHETVERIKOVA, N.P.

Tectonic position of the Karaganda coal basin. Biul.MOIP. Otd.geol. 36 no.4:155-175 Jl-Ag '61. (MIRA 14:9)
(Karaganda basin--Coal geology)

CHETVERIKOVA, N.P.

New data on the Ordovician stratigraphy of the Kokchetav Upland.
[Uch.zap.] Mosk.un. no.192:3-19 '61. (MIRA 15:7)
(Kokchetav Upland--Geology, Stratigraphic)

BOGDANOV, A.A.; ZAYTSEV, Yu.A.; MAZAROVICH, O.A.; MAKSIMOV, A.A.; TIKHOMIROV, V.G.; CHETVERIKOVA, N.P.

Tectonic regionalization of a Paleozoic massif in central Kazakhstan. Vest. Mosk. un. Ser. 4: Geol 18 no.5:8-20 S-O '63. (MIRA 17:2)

1. Kafedra istoricheskoy i regional'noy geologii Moskovskogo universiteta.

CHETVERIKOVA, O. P.

"Development of the Meadow Stage of the Peat Forming Process in the Delta of the Volga River." Cand Biol Sci, Moscow State U, Moscow, 1953. (RZhBiol, No, Sep 54)

SO: Sum 432, 29 Mar 55

CHETVERIKOVA, O.P.

Geochemistry of terrigenous Carboniferous sediments in Saratov Province. Geol. nefti Supplement to no. 7:77-85 '58. (MIRA 11:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut.
(Saratov Province--Sediments(Geology))

CHETVERIKOVA, O.P.

Use of potentiometric titration to determine the oxidizability of rocks. Trudy VNIGNI no.11:233-244 '58. (MIRA 13:1)
(Potentiometric analysis) (Oxidation-reduction reaction)
(Rocks--Analysis)

RODIONOVA, K.F.; CHETVERIKOVA, O.P.

Studying the residual organic matter of sedimentary rocks.
Trudy VNIGNI no.33:263-270 '62.

(MIRA 18:12)

KUZNETSOV, Yefrem Aleksandrovich; CHETVERIKOVA, S.D., red.; SMIRNOVA, Z.A., red.izd-va; SHMAKOVA, T.M., tekhn. red.

[Method comparative birefringence dispersion; a new method for analyzing the chemical composition of crystalline substances] Metod analiza sravnitel'noi dispersii dvuprelomleniia; novyi metod analiza khimicheskogo sostava kristallicheskikh veshchestv. Pod red.S.D.Chetverikova. Moskva, Gosgeoltekhizdat, 1962. 103 p. (MIRA 16:2)

(Mineralogy, Determinative) (Refraction, Double)

CHETVERIKOVA, V.I., kandidat meditsinskikh nauk,

Functional mobility of the retina in glaucoma at various periods of the day. Vest.oft. 33 no.1:14-17 Ja-F '54. (MLRA 7:1)

1. Iz glaznoy kliniki (ispolnyayushchiy obyazannost' direktora - zasluzhennyy vrach RSFSR dotsent A.A.Gastev) Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachey im. S.M.Kirova.
(Glaucoma)

CHETVERIKOVA, V.I. (Leningrad, Botkinskaya ul., d.5, kv. 3)

Fate of patients following enucleation of melanomas of the vascular tract of the eye. Vop.onk. 5 no.4:462-466 '59. (MIRA 12:12)

1. Iz kafedry oftal'mologii (zav. - zasluzhennyy vrach RSFSR A.A. Gastev [deceased]) Gosudarstvennogo instituta usovershenstvovaniya vrachey i iz Gorodskoy glaznoy bol'nitsy (glavnyy vrach - M.Ya. Lushin).
(EYE, neoplasms,
melanoma of vasc. tract, enucleation & follow-up (Rus))
(MELANOMA, surg.
eye vasc. tract tumors, enucleation & follow-up (Rus))

CHETVERIKOVA, V. N.

Chetverikova, V. N.

"The Prophylaxis and Treatment of Chemical Burns among Workers in the Mining Industry of Krivoy Rog Basin (Clinical-Experimental Investigation)." Dnepropetrovsk State Medical Inst. Dnepropetrovsk, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

CHETVERIKOVA, V.N.

USSR/Human and Animal Physiology - Digestion. T-7

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31841

Author : Chetverikova, V.N.
Inst :
Title : Comparative Data of an Investigation of the Stomach by Means of Roentgenoscopy, of Determination of Secretory Activity, and of Gastrogram Recording.

Orig Pub : Sb. nauchn.rabot. Dnepropetr. med. in-t, 1956, 2, 241-242.

Abstract : No abstract.

Card 1/1

CHETVERIKOVA, Yevdokiya Aleksandrovna; PEREBOROV, Aleksandr Sergeyevich; MAKITO, E.I., redaktor; VERINA, G.P., tekhnicheskiy redaktor

[General course on railroad signaling, centralization and block-systems] Obshchii kurs signalizatsii, tsentralizatsii i blokirovki. Moskva, Gos. transp. zhel-dor. izd-vo, 1956. 310 p. (MLRA 9:8)
(Railroads--Signaling)

BOYTSOV, Aleksandr Yevgen'yevich; CHETVERIKOVA, Yevdokiya Aleksandrovna; SEMIRENKO, B.F., inzh., retsenzent; FOMICHEV, Ye.A., inzh., retsenzent; MARENKOVA, G.I., inzh., red.; NOVIKAS, M.N., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Electric power supply to automatic control and remote control devices] Energosnabzhenie ustroistv avtomatiki i telemekhaniki. Izd.2., perer.i dop. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 215 p. (MIRA 14:12)
(Automatic control) (Remote control)
(Electric power supply to apparatus)

CHETVERIKOVA, Ye.K.; PETUKHOV, M.I.

Formation and oxidation of acetone bodies in the tissues and changes in the glycogen and lactic acid content in acute hypoxia. Vop. med. khim. 8 no.4:365-369 Jl-Ag '62.

(MIRA 17:11)

1. Kafedra biokhimii 1 Leningradskogo meditsinskogo instituta imeni Pavlova.

CA CHETVERIKOVA, Ye. P. IID

Oxidative enzymes of white head cabbage. B. A. Rubin and E. P. Chetverikova (A. N. Bakh Biochem. Inst., Moscow). *Izvest. Akad. Nauk S.S.S.R., Ser. Biol.* 1951, No. 4, 120-31.—In cabbage tissues ascorbic acid acts as H transfer agent of the respiratory substrate and is oxidized by ascorbic acid oxidase, peroxidase, and cytochrome oxidase. The curves of ascorbic acid content and those of activity of metal-contg. enzymes are similar in the course of plant development. High CO_2 atm. which represses oxidative processes leads to a sharp drop of ascorbic acid. A ripe cabbage respires exclusively via its metal-contg. enzyme systems. In storage the residual respiration fraction increases sharply; cytochrome oxidase declines. The importance of peroxidase in plant oxidation processes is greatly stressed. Several strains of cabbage are compared and enzymic activity is described in graphical form.

G. M. Kosolapoff

CHETVERIKOVA, Ye. P.

CA

11A

Participation of cytochrome oxidase in respiration of cabbage tissues. B. A. Rubin and E. P. Chetvertikova. *Doklady Akad. Nauk S.S.S.R.* 77, 661–2(1951).—Over the entire ontogenesis of a cabbage plant planted in early summer the cytochrome oxidase activity is consistently higher than in the same plant planted in early spring (av. difference 174%); a similarly higher resistance to microorganisms is also exhibited. In all instances the enzyme activity rises steadily with growth and declines sharply only in the fall months. G. M. Kosolapoff

1951

The role of oxidative processes in the resistance of cabbage to Botrytis cinerea. B. A. Rubin and E. P. Chetverikova. *Biokhim. Plodov i Ovoshchei, Akad. Nauk S.S.S.R., Trudy Biokhim. Sektsii* 3, 143-78(1955).—Infection with *Botrytis* or of its toxin into cabbage causes a severe disturbance of the oxidative app. of cabbage. The toxin causes a complete inactivation of cytochrome oxidase and a partial one of ascorbic oxidase. Peroxidase and residual respiration enzymes are resistant to the toxin and are in fact somewhat activated by it. *Botrytis* and its toxin produce an analogous action by activation of residual and total respiration and inactivation of ascorbic oxidase of the cabbage tissue. The inactivation may be caused by proteolytic enzymes of *Botrytis* acting on the oxidases. A *Botrytis*-resistant strain of cabbage (Amager) has unusually high activity of the oxidases which are not attacked by *Botrytis*. Various cabbage strains were exaind. G. M. Kosolapoff.

Chetverikova, E.P.

Oxidation system and immunity of plants. B. A. Rubin, E. P. Chetverikova, and E. V. Artsikhovskaya. *Zhur. Obshchei Biol.* 16, 105–18(1955).—It is shown that the oxidation processes in plants have an important role in their fight against disease-causing microörganisms. However, not all oxidation enzymes are in this case of the same importance. Activation of mol. O in the cells of a healthy plant is caused, to a greater extent, by the action of oxidase which is, however, not immune against the toxic secretions of the parasites. In case of infection the basic role in the fight against infection goes to another oxidase which can activate itself under the action of toxic matters. 45 references.

F. J. Hendel

MD

(2)

OBUKHOVERIKOVA, Ye.P.

Respiration of cerebrocortical and hepatic sections of rabbits during medinal sleep [with summary in English] Vop.med.khim. 2 no.5:338-345 S-O '56. (MIRA 9:12)

1. Laboratoriya farmakologii obmena veshchestv Instituta farmakologii i khimioterapii AMN SSSR, Moskva.

(BARBITURATES, effects,
barbital sodium-induced sleep on cerebral cortex resp. in rabbits (Rus))
(CEREBRAL CORTEX, metabolism,
resp. of cortical slices isolated from animals in barbital sodium-induced sleep (Rus))
(SLEEP, effects,
on cerebral cortex resp. in animals, barbital sodium-induced sleep (Rus))

CHETVERIKOVA, Ye. P.

USSR/Pharmacology. Toxicology. Narcotic Drugs. U-1

Abs Jour : Ref Zhur-Biol., No 7, 1958, 32807.

Author : Chetverikova Ye. P.
Inst : Not given.
Title : Tissue Respiration in Sleep Induced by Cloral Hydrate.

Orig Pub : Farmakol. i toksikologiya, 1957, 20, No 3, 42-48

Abstract : The excretion CO_2 in the cerebral cortex and the liver of rabbits is not effected by chloral hydrate (700-1200mg/kg subcutaneously). The respiratory coefficient rises or remains unchanged if simoltaneously O_2 obsorption is lowered. Sleep induced by medinal is characterized by lower excretion of CO_2 and a drop of the respiratory coefficient. Common to sleep induced by chloral hydrate and medinal are changes in the obsorption of O_2 by the

Card 1/2

Inst Pharmacology & Chemotherapy AMS USSR

USSR/P

CHETVERIKOVA, Ye.P.

The effect of medinal on the dehydrogenases and respiratory quotient of liver tissue [with summary in English]. Vop.med.khim. 4 no. 2:131-138 Mr-Ap '58. (MIRA 11:5)

1. Laboratoriya farmakologii obmena veshchestv Instituta farmakologii i khimioterapii AMN SSSR, Moskva.
(BARBITURATES, effects
barbital on dehydrogenases & oxygen consumption of liver tissue in vitro (Rus)
(LIVER, metabolism
oxygen consumption & dehydrogenases in vitro, eff. of barbital (Rus)
(DEHYDROGENASES, metabolism
liver activity in vitro, eff. of barbital (Rus)

CHETVERIKOVA, Ye.P.

Respiration of liver tissues during sleep induced by barbamil and pentobarbital sodium. Ukr.biokhim.zhur. 30 no.5:761-769 '58
(MIRA 11:12)

1. Laboratoriya farmakologii obmena veshchestv Instituta farmakologii i khimioterapii AMN SSSR.
(RESPIRATION)
(LIVER)
(AMYTAL)
(PENTOBARBITAL)

CHETVERIKOVA, Ye.P.

Effect of succinic acid on medication sleep and certain oxidation processes in tissues. Vop.med.khim. 5 no.6:429-435 N-D '59.
(MIRA 13:3)

1. Laboratoriya biokhimii Instituta farmakologii i khimioterapii AMN SSSR, Moskva.
(SUCCINATES pharmacol.)
(SLEEP pharmacol.)

CHETVERIKOVA, Ye.P.

Respiration and phosphorylation of the sympathetic ganglia of the cat under the effect of barbamil. Biul. eksp. biol. i med. 50 no.9:80-84 S '60. (MIRA 13:11)

1. Iz laboratorii biokhimii (zav. - deystvitel'nyy chlen AMN SSSR S.Ye.Severin) Instituta farmakologii i khimioterapii AMN SSSR, Moskva.

(NERVOUS SYSTEM, SYMPATHETIC) (AMOBARBITAL)

CHETVERIKOVA, Ye.P.

Effect of papaverine on some processes of carbohydrate—phosphorus metabolism in myocardial tissue. Vop. med. khim. 7 no.4:372-380 Jl-Ag '61. (MIRA 15:3)

1. Laboratory of Biochemistry of the Institute of Pharmacology and Chemotherapy of the Academy of Sciences of the U.S.S.R.

(HEART—MUSCLE) (PAPAVERINE)
(PHOSPHORUS METABOLSIM) (CARBOHYDRATE METABOLISM)

CHETVERIKOVA, Ye.P.

Effect of papaverine on oxidative phosphoylation in the tissues of the heart muscle. Uch.zap.Inst.farm.i khimioter.AMN SSSR no.2:212-222 '60. (MIRA 15:10)

1. Laboratoriya biokhimii (zav. - deystv. chlen AMN SSSR, prof. S.Ye.Severin).
(HEART--MUSCLE) (PAPAVERINE) (PHOSPHORYLATION)

L 63315-65

ACCESSION NR: AP5017651

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14
B

AUTHOR: Chetverikova, Ye. P.

TITLE: Effect of papaverine and iodoacetate on myocardial creatine kinase

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 7, 1965, 71-74

TOPIC TAGS: alkaloid, myocardium, phosphorus metabolism, enzyme, phosphocreatine adenosine triphosphoric acid

ABSTRACT: The activity of creatine kinase (CK) was studied in rabbits injected with papaverine and in the presence of 0.001 and 0.002 M monoiodoacetic acid. MIA. CK activity was the same in the control animals and in those receiving papaverine, but there was a difference in enzymatic sensitivity to MIA. The [illegible] of MIA [illegible] papaverine suppressed the formation of lactic acid in control, but had little effect in the animals that received papaverine.

Card 1/3

ACCESSION NR: AP5017651

fect of the larger dose (0.002 M) in the control was even stronger, though transient (within 5 minutes the action of MIA was the same in the experimental animals as in the control). Thus, in 2-day-old extracts from the myocardium of a rabbit injected with papaverine, the alkaloid successfully protected [illegible] tion by MIA. In another series of experiments, the simultaneous [illegible] creatine, and magnesium likewise prevented MIA from suppressing [illegible] sium alone or magnesium plus creatine were ineffective. The author [illegible] the mechanism of action of MIA on skeletal muscle CK (activation of [illegible] the active enzyme center) may also be the same in myocardium. [illegible] The [illegible] of MIA is blocked by one of the substrates of the Mg-ATP [illegible] Consequently, by preventing myocardial [illegible] tivated by MIA, papaverine protects the SH-group of the active enzyme [illegible] [illegible].

ASSOCIATION: Laboratoriya biokhimii Instituta farmakologii i khimioterapii AMN SSSR, Moscow (Laboratory of Biochemistry, Institute of Pharmacology and Chemotherapy, AMN SSSR)

Card 2/3

L 63315-65

ACCESSION NR: AP5017651

SUBMITTED: 07Mar64 ENCL: 00 SUB CODE: LS

NO REF SOV: 005 OTHER: 004

lm

Card 3/3

CHETVERIKOVA, Ye.P.

Effect of papaverine and some inhibitors on the creatine kinase in the skeletal muscles. Dokl. AN SSSR 164 no.3:696-698 S '65. (MIRA 18:9)

1. Institut farmakologii i khimioterapii AMN SSSR. Submitted November 18, 1964.

CHETVERIKOVA, YE. P., (USSR)

"The Effect of Papaverin on the Creatinkinase of Heart and Smooth Muscles."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

CHETVERIKOVA, Ye. S.

IVERONOVA, V.I., professor, redaktor; BELYANKIN, A.G.; CHETVERIKOVA, Ye.S.; YAKOVLEV, I.A.

[Practical work in physics; manual] Fizicheskii praktikum; rukovodstvo k prakticheskim zaniatiiam po fizike. Izd.2.,ispr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 634 p. (MLRA 7:3)
(Physics--Laboratory manuals)

GINZBURG, Vitaliy Lazarevich; LEVIN, Lev Mikhaylovich; RABINOVICH, Matvey Samsonovich; SIVUKHIN, Dmitriy Vasil'yevich; CHETVERIKOVA, Yelizaveta Sergeyevna; LIVSHITS, B.L., red.; GAVRILOV, S.S., tekhn.red.

[Collection of problems for the general course in physics] Sbornik zadach po obshchemu kursu fiziki. Pod red. D.V.Sivukhina. Izd. 2., perer. i dop. Moskva, Gos.izd-vo fiziko-matem.lit-ry. Pt.2. [Optics, molecular physics, and thermodynamics] Optika. Molekuliarnaia fizika i termodinamika. Atomnaia fizika i fizika iadra. 1960. 366 p. (MIRA 13:10)
(Physics--Problems, exercises, etc.)

BELYANKIN, A.G.; MOTULEVICH, G.P.; CHETVERIKOVA, Ye.S.; YAKOVLEV, I.A.; IVERONOVA, V.I., prof., red.; KUZNETSOVA, Ye.B., red.; KRYUCHKOVA, V.N., tekhn. red.

[Laboratory manual on physics] Fizicheskii praktikum. Pod red. V.I.Ivernovai. Moskva, Fizmatgiz, 1962. 956 p. (MIRA 16:5)

(Physics--Laboratory manuals)

AUTHOR CHETVERIKOVA Z.S., KIMEL' L.

TITLE The Contents of the Atomic Pavillion of the All Soviet Industrial Exhibition (Department "Protective Devices") 89-5-12/22
(V atomnom pavil'one Vsesoyuznoy promyshlennoy vystavki , (Otdel "Zashchitnaya tekhnika)-Russian).

PERIODICAL Atomnaia Energiia, 1957, Vol 2, Nr 5, pp 474-475 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT In this department various devices and means for the protection of persons against exterior radiation and the penetration of radioactive substances in formof gases or aerosols into the interior of the human organism and on the skin are exhibited. Further, various dosimetric apparatuses are on show, which are intended for the control of radiation levels (with signals if the permitted limit is exceeded), as well as tables and nomograms for the determination of safety conditions during work with radioactive radiation sources. In the Soviet Union special porophylactic and protective measures were applied. This department also shows tables of the permissible levels of ionizing radiations for work of longer duration with radioactive isotopes. The exhibition further shows various means for the protection against pentrating radiation. In "hot" chambers work is carried out behind lead- or concrete shields with special "tele-manipulators". Thus, gripping instruments and pincers with long handles were shown. Furthermore, hermetically tight boxes with gloves built into their walls were on show. The booths contained numerous devices for individual protection when working with open radiactive

Card 1/2

The Contents of the Atomic Pavillion of the All Soviet [redacted]
Industrial Exhibition (Department "Protective Devices".) 89-5-12/22

substances: Protective suits made of a cotton-paper tissue to be worn when working with open radioactive substances with an activity of up to lo microcurie. Aprons, coverings for sleeves, half-length coats, half combinations, etc. to be worn in addition to the aforementione protective clothing when working with radioactive substances with more than lo microcurie. Further articles are: a valveless anti-dust respirator SH B -1 "LEPESTOCK". Breathing Helmets and pneumatic suits with automatic air supply, to be worn for repair work. Various pieces of clothing such as goloshes and boots made of polyvinylchloride or rubber, filtrated material made of perchlorvinyl, dosimetric and radiometric apparatus, pocket- ionization chambers;
This department will be considerably enlarged in 1957

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CHETVERIKOVA, Z.S., GORODINSKIY, S.M., SHCHERBAKOV, V.I.

"Some Sanitary Engineering Requirements in the Organization of the Cleaning of Plastic Items for Individual Protection". p.35

Trudy Vsesoyuznoy Konferentsii po Meditsinskoy Radiologii (Voprosy Gigiyeny i Dozimetrii) Medgiz, 1957, Moscow Russian, ok.

Proceedings of the All-Union Conference on Medical Radiology (Hygienic and Dosimetric Problems)

85807

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S/148/60/000/003/011/018
A161/A029

AUTHORS: Prograshchenko, A.V.; Chetverkina, G.Ye.

TITLE: On the Problem of K-State in Nickel-Chrome Alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. - Chernaya metallurgiya, 1960, No. 3, pp. 106 - 109

TEXT: The "K-state" of Ni-Cr alloys has been studied previously in several works (Refs. 1,6,8). An increased electric resistance value is one of its characteristic peculiarities (Ref. 1). The anomaly of resistance caused by the K-state was accompanied by anomalous changes of such properties as heat absorbing capacity (Ref. 4), hardness (Ref. 2), heat expansions (Refs. 3,5), modulus of elasticity (Ref. 10), etc. The present article contains information on experiments with the K-state in two alloys, (No. 6) 27.00% Cr, 73.00% Ni; 0.001% C; (No. 7) 31.30% Cr, 68.70% Ni; 0.01% C, induced by cold deformation and quenching. A metal state deformed by 60% and free of "K-state" was taken as normal state for comparisons, and the specific resistance of such a metal as 100%. Comparing with this normal conditions, electric resistance dropped 8% in the first alloy and 6% in the second as a result of K-state destroyed at heating to 1,000°C. The analogous effect of

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On the Problem of K-State in Nickel-Chrome Alloys

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A161/A029

cold deformation is a 12.2% drop of electric resistance. It was concluded that it is not possible to prevent the formation of the K-state completely by quenching specimens from 1,000°C (which had been stated also in Refs. 1,8, etc.), and appearantly a cooling rate several times faster is necessary for this end. Such a rapid cooling is necessary in view of the fact that it takes only some decimal fractions of one second for the K-state to reach equilibrium at 750°C, and only thousands of one second to reach equilibrium at 1,000°C (Refs. 6,7). Comparing the curves electric resistance versus deformation, electric resistance versus temperature, and the curves of K-state existence for the two alloys, it is concluded that the resistance anomalies through the K-state are more pronounced in the first alloy (No. 6) than in the second (No. 7) which is near the Ni_2Cr type. There are 3 figures and 11 references: 8 Soviet, 1 German, 2 English.

ASSOCIATION: Nikolayevskiy korablestroitel'nyy institut (Nikolayev Shipbuilding Institute)

SUBMITTED: March 9, 1959

CHETVERKINA, G. Ye.

35198
S/185/62/007/002/012/016
D299/D302

18.1750

AUTHORS: Zhmuds'kyy, O.Z., Prohrushchenko, O.V., and Chetv'orkina, H.Ye.

TITLE: Some peculiar features of the K-state of nickel-chromium alloys with titanium

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 2, 1962, 212 - 216

TEXT: The resistivity, density and crystalline structure of Ni-Cr-Ti alloys were studied as a function of Ti-concentration, plastic deformation and heat treatment. The alloys were prepared in an electric-arc furnace with tungsten electrodes (in an argon atmosphere). The alloys contained 23 atom % Cr and 1, 2.5 and 4 atom % Ti, respectively. In order to study the resistivity in a strongly deformed state, specimens of 1 mm diameter were drawn through holes of smaller diameter. The degree of deformation was determined from the ratio $\triangle D/D_o$, where $\triangle D = D_o - D_n$ (D_o being the initial specimen-diameter and D_n -- the diameter after deformation). The resistivity X

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was calculated by the formula $\rho = R \frac{m}{l^2} \cdot \frac{1}{\delta}$, where δ is the density of the alloy. It was found that the density decreases with increasing Ti-concentration. In the case of pure Ni, a 70 %-deformation led to a 0.2 % decrease in density, whereas a 60 %-deformation -- to a 0.8 % decrease. A figure shows the resistivity versus degree-of-deformation curves. The resistivity decreased from 111.4, 119.3 and 123,5 μ ohm·cm, before the deformation, to 14.7, 16.3 and 15.9 μ ohm·cm after the deformation (for the 3 specimens containing 1, 2.5 and 4 atom % Ti, respectively). A 60 %-deformation completely destroys the K-state in all 3 specimens. In order to study the temperature dependence of the resistivity, specimens with 0.41 mm diameter, were used; 60 % deformed specimens were heated to 1000°C, and then cooled. The resistivity of all the alloys decreased anomalously at temperatures above 550°C. The shape of one of the temperature-dependence curves can be explained by assuming that the heating leads to the dissolution of an η - type phase (Ni_3Ti). This was confirmed by X-ray investigations, which also showed that all the alloys have face-centered cubic structure. The following lattice-

Card 2/3

parameter values were obtained: 3.5478; 3.5551 and 3.5596 Å for Ni-Cr-Ti alloys with a Ti-concentration of 1, 2.5 and 4 atom %, respectively. The resistivity of a pure Ni-Cr alloy with 23 atom % Cr is 15.5 % greater than that of a 60 %-deformed alloy. On adding Ti to the alloy, its K-state changes, its resistivity increases, the temperature range of existence of the K-state increases, and the minimum of the temperature curves is shifted towards higher temperatures. There are 4 figures, 1 table and 12 references: 10 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: R. Nordheim and N.Grant, J. Metals, 6, no. 2, 1954; A. Taylor, J. Metals, 8, no. 10, 1955.

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T.H. Shevchenka (Kyyiv State University im. T.H. Shevchenko); Mykolayivs'kyy korablebudivnyy instytut im. S.O. Makarova (Mykolayiv Ship-Building Institute im. S.O. Makarov)

SUBMITTED: May 22, 1961

Card 3/3

X

L 11073-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3001378 S/0148/63/000/005/0142/0145

AUTHOR: Zhmudskiy, A. Z.; Progrushchenko, A. V.; Chetverkina, G. Ye.

TITLE: Some characteristics of the K-state in nickel-chromium alloys alloyed by alluminum

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1963, 142-145

TOPIC TAGS: specific electrical resistance, density, crystal structure, nickel-chrome-aluminum alloys, plastic deformation, heat treatment, K-state

ABSTRACT: Specific electrical resistance, density and crystal structure of nickel-chrome-aluminum alloys were studied as a function of Al content, plastic deformation (to 60%) and heat treatment.

In analyzing deformation and temperature curves, authors concluded that large additions of aluminum to pure nickel chrome alloy led to more abrupt manifestation of the K-state and to widening of the temperature interval for its existence. The presence of a bulge on the curve of the alloy containing 7% Al (at 750 degrees) is explained as the heterogeneous phase of this alloy. Orig. art. has: 2 figures, 1 table, and 13 references.

ASSOCIATION: Kiev State University

Card 1/2

PROGRUSHCHENKO, A.V. [Prohrushchenko, A.V.]; CHETVERKINA, G.Ye. [Chetv'orkina, H.IE.]

Density of plastically deformed nickel-chromium alloys. Ukr. fiz. zhur. 10 no.1:110-111 Ja '65. (MIRA 18:4)

1. Nikolayevskiy korablestroitel'nyy institut imeni Makarova.

L 1582-66 EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG/MJW(CL)

ACCESSION NR: AP5015443 UR/0185/65/010/006/0672/0675

38
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13

AUTHOR: Chetv'orkina, H. Ye. (Chetverkina, G. Ye.)

TITLE: K state and the heat capacity of Ni--Cr alloys

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 6, 1965, 672-675

TOPIC TAGS: nickel 27 alloy, chromium 27 alloy, heat capacity, metal heat treatment, temperature dependence, phase transition 18

ABSTRACT: The effect of heat treatment on the temperature dependence of the heat capacity of nickel-chrome alloys with 11, 25, and 34 at. per cent Cr, and alloys with 23 at. per cent Cr and 7 or 8 at. per cent Mo or 4 at. per cent Ti was investigated by the Sykes-Gruzin method in the annealed and tempered states. The alloys were prepared in a high-frequency furnace in a purified argon atmosphere using industrial-grade pure Ni, and electrolytic Cr, Al, and Mo. The alloys were annealed before mechanical treatment for 4 hours at 1000C. The setup was checked with a copper sample using the tabulated heat capacity at room temperature. The samples were annealed simultaneously

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ACCESSION NR: AP5015443

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in vacuum at 1000C for 4 hours and were cooled during 6--7 hours; the conditions for the production of the K state were thus identical. The samples were tempered with water at 1080C. Repeated runs of the samples after annealing indicated no change in the heat capacity. Two peaks were observed on the temperature curves of the heat capacity of all the annealed alloys. The low-temperature peak corresponds to the disturbance of the K state in the alloys. Instead of this peak a minimum is observed in the tempered alloys. The existence of the high-temperature peak cannot be explained by the two-phase nature of the alloys and requires further investigation. It is shown that the anomaly of the heat capacity and of the electrical resistance of the alloys is due to the same cause. The formation of the K state in the alloys is attended by the generation, and its disturbance by absorption of heat, giving rise to the corresponding minimum and maximum. Orig. art. has: 4 figures.

L 1582-66
ACCESSION NR: AP5015443

ASSOCIATION: Mykolayivs'kyy korablebudival'nyy instytut im. S. Y. Makarova (Nikoleyevsk Shipbuilding Institute)

SUBMITTED: 21Apr64 ENCL: 00 SUB CODE: MM, SS

NR REF SOV: 009 OTHER: 001

Card 3/3 DP

L 08135-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG

ACC NR: AP6033526 SOURCE CODE: UR/0185/66/011/010/1128/1133

AUTHOR: Chetv'orkina, H. Ye. --Chetverkina, G. Ye.; Progrushchenko, A. V.

ORG: Nikolayev Shipbuilding Institute (Mykolayivs'kyy korablebudivnyy instytut)

TITLE: Thermal electromotive force and K-state of nickel chromium alloys

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 10, 1966, 1128-1133

TOPIC TAGS: thermal electromotive force, nickel base alloy, chromium base alloy, aluminum alloy, molybdenum alloy, plastic deformation, binary alloy

ABSTRACT: The authors investigated the dependence of the thermal emf on the plastic deformation and thermal processing of binary Ni—Cr alloys containing 0, 1, 2.5, 4, 5, 11, 25, 20, 25, 29, and 34 at % Cr and alloys containing 23 at % Cr and 1, 2.5, 4, and 7 at % Al or 1, 2.5, and 4 at % Tl or 1, 2, 4, 8, and 10 at % Mo. The thermal emf was measured with respect to Cu. It is shown that plastic deformation increases the thermal emf of pure Ni and alloys corresponding to the composition of Ni_3Cr and Ni_2Cr. The alloy with 1 at % Cr becomes electrically negative after hardening at 1100C. An annealed alloy with 1 at % Cr is at first electrically positive with respect to Cu and is negative at temperatures above

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ACC NR: AP6033526

500C. A change in sign is also observed in the temperature vs thermal emf curves in the alloy with 34 at % Cr in the hardened, annealed, and plastically strained states. All other alloys are electrically positive with respect to Cu in all states. Pure nickel is electrically negative with respect to Cu. The disturbance of the K-state decreases the thermal emf of all binary Ni—Cr alloys, except those indicated above, and of alloys containing Mo and 7 at % Al. The thermal emf decreases in titanium and other aluminum alloys upon formation of the K-state. Orig. art. has: 6 figures. [Based on authors' abstract]

SUB CODE: 20/ SUBM DATE: 05Jul65/ ORIG REF: 009/ OTH REF: 004/

Card 2/2 nst

ARDASHNIKOV, S.N.; CHETVERKOV, N.S.

Interchangeability of the source of radiation and the object in radiological dosimetry. Med.rad. 5 no.5:29-33 '60.
(MIRA 13:12)

(RADIATION—MEASUREMENT)

Chet-Vernikov, D.A.

KREPS, Ye.M.; PIGAREVA, Z.D.; CHET-VERNIKOV, D.A.; POMAZANSKAYA, L.F.

Biochemical development of the brain in ontogenesis and nervous function. Zh. vyssheĭ nerv. deiat. 2 no. 1:46-57 Jan-Feb 1952. (CIML 23:3)

1. Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR.

CHETVERNIN, L. A.

Proektirovanie, raschet i konstruirovanie vodoprovodno-kanalizatsionnykh opusknykh sooruzhenii [Planning, calculating and constructing water supply and sewer gravity structures]. Moskva, Min kommunal. khozh. RSFSR, 1953. 168 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 9 December 1953

CHETVERNIN, L.A.; SHMURNOV, K.V., dots., kand. tekhn. nauk, nauchnyy red.; SMIRNOVA, A.P., red. izd-va; TOKER, A.M., tekhn. red.

[Design and manufacture of precast reinforced concrete sewers] Proektirovanie i stroitel'stvo sbornykh zhelezobetonnykh kollektorov. Moskva, Gos. izd-vo lit-ry po stroit. i arkhit., 1958. 178 p. (MIRA 11:9)

(Sewers, Concrete)

CHETVERNINA, R. S.

USSR / Microbiology. Microbes Pathogenic to Man and Animals. Bacteria. Bacteria of the Intestinal Group. F-5

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72175.

Author : Budylina, V. V.; Illyutovich, A. Yu.; Petrova, Z. S.; Gadulina, T. V.; Golubeva, Ye. Ye.; Titrova, A. I.; Chetvernina, R. S.

Inst : Stavropol Scientific-Research Institute of Vaccines and Sera.

Title : Experimental-Biological Model of Bacterial Dysentery.

Orig Pub: Sb. nauchn. tr. Stavropol'sk. n.-i. in-t vaktsin i syvorotok, 1957, vyp. 4, 85-97.

Abstract: Kittens aged 2-5 months were infected orally with a local strain of a Flexner type W in a quantity of 1-6 billion microbe bodies. Development of

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Abstract: typical bacterial dysentery was observed in all kittens after the incubation period. The animals were divided into 3 groups according to the character of the course of the disease (severe, intermediate and mild forms of dysentery). It is noted that the seriousness of the disease did not depend on the infecting dose of the bacteria. The diagnosis was confirmed by the bacterial investigation of feces and internal organs, as well as by means of phagocyte reaction and reaction of agglutination with sera of the kittens. Pathologico-anatomic and histological changes of internal organs of the kittens were characteristic

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Abs Jour: Ref Zhur-Biol., No 16, 1958, 72175.

Abstract: for dysentery. The authors think that kittens must serve as an experimental-biological model for the study of the problems of pathogenesis and immunity from dysentery. -- F. I. Yershov.

Card 3/3

USSR / Microbiology. Microbes Pathogenic to Man and Animals. Bacteria. Bacteria of the Intestinal Group. F-5

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72176.

Author : Chetvernina, R. S.
Inst : Stavropol Scientific-Research Institute of Vaccines and Sera.
Title : Study of Some Problems of Bacterial Dysentery in an Experiment on Kittens.

Orig Pub: Sb. nauchn. tr. Stavropol'sk. n.-i. in-t vaktsin i syvorotok, 1957, vyp. 4, 99-107.

Abstract: A dysentery with a different course in intensity was developed in kittens infected with cultures of various types of Flexner dysentery bacteria ("f" and "c"). Clinical pathologico-anatomic and immuno-biological changes were observed which are

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CHETVERINA, R. S.

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-5

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9960

Author : Budylina, V. V., Illyutovich, A. Yu., Petrova, Z. S., Bodulina, T. V., Golubeva, Ye. Ye., Titrova, A. I., Chetverina, R. S.

Inst : -

Title : Experimental Bacterial Dysentery.

Orig Pub : Byul. eksperim. biol. i meditsiny, 1957, 43, No 2, 70-75

Abstract : Kittens at the age 2-5 months were infected by a suspension of Flexner dysentery culture (strain No 6176) mixed with Milk. All 15 kittens became ill with typical dysentery clinical symptoms. Flexner dysentery bacilli were isolated from excreta and 5 different organs. Accumualtion of agglutinins in the blood was noted 6 days after infection, and lasted all through the illness. During severe and moderate gravity of dysentery an inhibition of the

phagocytic reaction was noted in the course of the whole period of illness; in lighter forms of the disease the phagocyte activity was restored from the 10th day after infection. The dysentery diagnosis was confirmed on dissection.

ILLYUTOVICH, A.Yu., PETROVA, Z.S., GOLUBEVA, Ye.Ye., CHETVERNINA, R.S.

Use of the phage increase reaction for detecting Flexner's bacillus in the organism of an infected rabbit [with summary in English]. Biul.eksp.biol. i med. 45 no.6:78-84 Je '58 (MIRA 11:8)

1. Iz Stavropol'skogo instituta vaktsin i syvorotok (dir. - kand.med. nauk V.M. Kruglikov). Predstavlena deystvitel'nym chlenom AMN SSSR L.A. Zil'berom.

(DYSENTERY, BACILLARY, experimental,
phage increase reaction in detection of bacilli (Rus))
(BACTERIOPHAGE,
increase reaction in detection of Shigella dysenteriae in rabbits (Rus))

ILLYUTOVICH, A.Yu.; PETROVA, Z.S.; CHETVERNINA, R.S.; GOLUBEVA, Ye.Ye.

Experimental and biological method for obtaining vaccinal strains of Flexner's bacillus and studies on the immunological effectiveness of live dysenterial vaccine. Biul.eksp.biol. i med. 48 no.10:62-68 O '59. (MIRA 13:2)

1. Iz Stavropol'skogo instituta vaktsin i syvorotok (dir. - kand. med.nauk V.M. Kruglikov). Predstavlena deystvitel'nym chlenom AMN SSSR V.I. Chernigovskim.

(VACCINES)
(DYSENTERY BACILLARY immunol.)

CHETVERNYA, A.N., starshiy veterinarnyy vrach.

Leader in veterinary science. Veterinariia 33 no.2:18-20 F '56.
(MLRA 9:5)

1. Polyanskaya lugomeliorativnaya stantsiya Solotchinskogo rayona, Ryazanskoy oblasti.

(CHUKALIN, IVAN GRIGOR'EVICH)

CHETVEROV, B. M.

ALEKSANDROV, B.F., inzh.; BALYKOV, V.M., inzh.; BARANOVSKIY, F.I., inzh.; BOGUTSKIY, N.V., inzh.; BUN'KO, V.A., kand.tekhn.nauk, dotsent; VAVILOV, V.V., inzh.; VOLOTKOVSKIY, S.A., prof., doktor tekhn.nauk; GRIGOR'YEV, L.Ya., inzh.; GRIDIN, A.D., inzh.; ZARMAN, L.N., inzh.; KOVALEV, P.F., kand.tekhn.nauk; KUZNETSOV, B.A., kand.tekhn.nauk, dotsent; KUSNITSYN, G.I., inzh.; LATYSHEV, A.F., inzh.; LEYBOV, R.M., doktor tekhn.nauk, prof.; LEYTES, Z.M., inzh.; LISITSYN, A.A., inzh.; LOKHANIN, K.A., inzh.; LYUBIMOV, B.N., inzh.; MASHKEVICH, K.S., inzh.; MALKHAS'YAN, R.V.; MILOSERDIN, M.M., inzh.; MITNIK, V.B., kand.tekhn.nauk; MIKHEYEV, Yu.A., inzh.; PARAMONOV, V.I., inzh.; ROMANOVSKIY, Yu.G., inzh.; RUBINOVICH, Ye.Ye., inzh.; SAMOYLYUK, N.D., kand.tekhn.nauk; SMEKHOV, V.K., inzh.; SMOLDYREV, A.Ye., kand.tekhn.nauk; SNAGIN, V.T., inzh.; SNAGOVSKIY, Ye.S., kand.tekhn.nauk; FEYGIN, L.M., inzh.; FRENKEL', B.B., inzh.; FURMAN, A.A., inzh.; KHORIN, V.N., dotsent, kand.tekhn.nauk; CHETVEROV, B.M., inzh.; CHUGUNIKHIN, S.I., inzh.; SHELKOVNIKOV, V.N., inzh.; SHIRYAYEV, B.M., inzh.; SHISHKIN, N.F., kand.tekhn.nauk; SHPIL'BERG, I.L., inzh.; SHORIN, V.G., dotsent, kand.tekhn.nauk; SHTOKMAN, I.G., doktor tekhn.nauk; SHURIS, N.A., inzh.; TERPIGOREV, A.M., glavnyy red.; TOPCHIYEV, A.V., otv.red.toma; LIVSHITS, I.I., zamestitel' otv.red.; ABRAMOV, V.I., red.; LADYGIN, A.M., red.; MOROZOV, R.N., red.; OZERNOY, M.I., red.; SPIVAKOVSKIY, A.O., red.; FAYBISOVICH, I.L., red.; ARKHANGEL'SKIY, A.S., inzh., red.;

(Continued on next card)

ALEKSANDROV, B.F.---(continued) Card 2.
BELYAYEV, V.S., inzh., red.; BUKHANOVA, L.I., inzh., red.; VLASOV, V.M., inzh., red.; GLADILIN, L.V., prof., doktor tekhn.nauk, red.; GREBTSOV, N.V., inzh., red.; GRECHISHKIN, F.G., inzh., red.; GONCHAREVICH, I.F., kand.tekhn.nauk, red.; GUDALOV, V.P., kand.tekhn. nauk, red.; IGNATOV, N.N., inzh., red.; LOMAKIN, S.M., dotsent, kand. tekhn.nauk, red.; MARTYNOV, M.V., dotsent, kand.tekhn.nauk, red.; POVOLOTSKIY, I.A., inzh., red.; SVETLICHNYY, P.L., inzh., red.;SAL'TSEVICH, L.A., kand.tekhn.nauk, red.; SPERANTOV, A.V., kand.tekhn. nauk, red.; SHETLER, G.A., inzh., red.; ABARBARCHUK, F.I., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Mining; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Glav.red.A.M.Terpigorev. Chleny glav.redaktsii A.I. Baranov i dr. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.7. [Mining machinery] Gornye mashiny. Redkol.toma A.V.Topchiev i dr. 1959. 638 p. (Mining machinery) (MIRA 13:1)

CHETVEROV, B. M., inzh.

Study of spark prevention in nonreactive and inductive electrical networks. Mekh. i avtom. v gornoi prom. no.2:353-374 '62. (MIRA 16:1)

(Electricity in mining—Safety measures)

L 19273-63

ACCESSION NR: AR3005086 S/0196/63/000/006/A015/A015

SOURCE: RZh. Elektrotekhnika i energetika, Abs. 6A96

45

AUTHOR: Chetverov, B. M.

TITLE: Study of spark safety of no-reactance and inductive electrical circuits

CITED SOURCE: Sb. Mekhaniz. i avtomatiz. v gorn. prom-sti, Vy*p. 2. M., Gosgortekhizdat, 1962, 353-374

TOPIC TAGS: electrical circuit theory, no-reactance circuit, inductive circuit, nonreactive circuit

TRANSLATION: The author considers the peculiarities of sparking and inflagration of explosive gas mixtures upon the opening of no-reactance and inductive circuit elements. The studies performed made it possible for the author to use the established inflagration criteria as a basis for classifying the opening circuit elements depending on their parameters, as well as the determination of the boundary conditions under which a specific circuit character is manifested. On the basis of the resulting analytic functions it is possible to compute the values

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